AIRCRAFT DISPATCHER

UNIT 8 – AIRSPACE MAPPING

STUDENT WORKBOOK

UNIT OBJECTIVES

- 1. Manually deconflict airspace for a given area.
- 2. Identify reference materials needed to manually deconflict airspace for a given area.
- 3. Correctly identify Special-Use Areas (SUAs) and Military Training Routes (MTRs) given a sectional map.
- 4. Identify the scheduling office given a specific SUA or MTR.
- 5. Correctly determine the width of the route and the minimum/maximum altitudes flown on that route given a specific MTR.

NOTES

I. TERMINOLOGY

- A. Scheduling Agency: Special-Use Airspace
 - Schedules the use of the airspace
 - Listed on the sectional
- B. Using Agency: Special-Use AirspaceThe unit for which the SUA was originally constructed

- C. Controlling Agency: Special-Use Airspace
 - Controls the Special-Use Airspace
 - Point of contact for deconfliction

- D. Scheduling Activity: Military Training Routes
 - Department of Defense (DOD) unit responsible for scheduling MTR
 - Point of contact for deconfliction

II. SECTIONAL AERONAUTICAL CHART LEGEND

- A. Expiration Date
- B. Special-Use Airspace
 - Prohibited, Restricted, Warning, and Alert Areas
 - Military Operations Area (MOA)
- C. Special Conservation Areas

Description and boundary marker

- D. National Security Areas
- E. Victor Routes
- F. MTR (IR/VR)
- G. Maximum Elevation Figure (MEF)
 - Highest obstacle in a 30-mile square
 - Designated as blue numbers with superscript (e.g., 6^4)
 - Add two zeros

$$6^4 = 6,400$$
' MSL

H. Flight Levels (FL)

Airspace 18,000 feet MSL and above in increments of 100

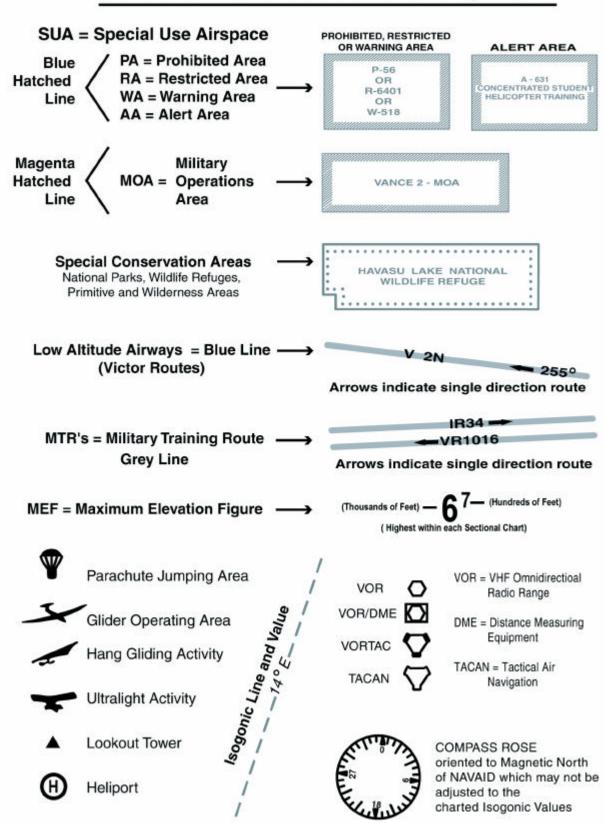
- I. Miscellaneous Symbols
 - Lookout towers, helibases, ultralights, gliders, parachutes, powerlines
 - VOR, VOR/DME, VORTAC, TACAN
- J. Compass Rose
- K. Mileage Conversion Chart

Statute miles stated in

Nautical

Kilometers

Selected Aeronautical Chart Symbols



III. AP/1B CHART

- A. MTR (IR/VR)
 - IR–red line
 - VR-blue line
- B. SR-black line
- C. AR-double black line
- D. Starting Point
- E. Segments
- F. Turning Point
- G. Ending Point
- H. Single Route
- I. Multiple Route
- J. Surface, floor/ceiling
 - Add two zeros (e.g., 300 + 00 = 30,000)

• Floor is either surface or above ground level (AGL)

The altitude from ground level up (e.g., 300 AGL means 300 feet above ground level)

• Ceiling is mean sea level (MSL)

The "true" altitude (e.g., Lake Tahoe is at 7,000 feet, an aircraft flying 500 feet above Lake Tahoe will be flying at 500 feet AGL or at 7,500 feet MSL)

IV. AP/1B BOOK

• Published every 56 days

Downloadable (Refer to page 8.11)

- Contains all MTRs (IR/VR), SRs, ARs, and nuclear power plants
- Contains scheduling activity phone numbers, hours of operation, route description (altitudes), terrain following operations, route widths, and special operating procedures

NOTES

ORDERING INFORMATION

AP/1A and AP/1B Books:

1. Download the AP/1A and AP/1B Books from: https://164.214.2.62/products/digitalaero/index.cfm

From the "Planning and Enroute Supplements" section, select either the "AP/1A" or "AP/1B" link.

- 2. Order from the National Aeronautical Charting Office (NACO):
 - Telephone (301) 436-8301 or (800) 638-8972
 - <u>www.naco.faa.gov</u>

From the "Catalogs/Ordering Info" link. Scroll down the page to the NIMA and NOAA Chart Catalog section. Select the "NIMA Worldwide Aeronautical Charts" link for pricing and ordering information.

AP/1B Charts:

- 1. Order from the National Aeronautical Charting Office (NACO):
 - Telephone (301) 436-8301 or (800) 638-8972
 - www.naco.faa.gov

From the "Catalogs/Ordering Info" link. Scroll down the page to the NIMA and NOAA Chart Catalog section. Select the "NIMA Worldwide Aeronautical Charts" link for pricing and ordering information.

2. If available, download the AP/1B Charts from: https://164.214.2.62/products/digitalaero/index.cfm

From the Flight Information Planning section, select the "Enroute Charts" link.

Sectional Aeronautical Charts:

- 1. Order from the National Aeronautical Charting Office (NACO):
 - Telephone (301) 436-8301 or (800) 638-8972
 - www.naco.faa.gov

From the "Catalogs/Ordering Info" link, select the "VFR Charts" link; select the "Sectional Aeronautical Charts" for pricing and ordering information.

- 2. To purchase locally, check the NACO website for local NACO agents in your area.
 - Telephone (301) 436-8301 or (800) 638-8972
 - www.naco.faa.gov

Select the "Agent Listings" link and complete the query.

Aeronautical Chart User's Guide:

Order from the National Aeronautical Charting Office (NACO):

- Telephone (301) 436-8301 or (800) 638-8972
- www.naco.faa.gov

From the "Catalogs/Ordering Info" link, select the "Supplemental Charts/Pubs" link, then select the "Aeronautical Chart User's Guide" link for pricing and ordering information.

MAPPING EXERCISE

The purpose of this exercise is to complete the necessary paperwork associated with performing the job of ACDP. Ensure that you understand the process by asking questions of your coach and group members.

SAMPLE EXERCISE: LAS VEGAS SECTIONAL

Use all reference material that is located on your table to answer the questions below. Transfer the information that you find to the Airspace Exercise Worksheet. Do not answer the questions directly below. Use the worksheet.

Location:

A fire is located at 37° 22'N by 114° 37'W (5 miles West of Elgin in Delamar Mountains)

Questions:

On the forms provided by the instructor, answer the following questions:

Is there special use airspace here? If so, what is the SUA? (Refer to sectional)

Who is the controlling agency? (Refer to sectional)

Which MTRs/SRs are involved?

(Refer to sectional and AP/1B book and chart)

Which segments of the MTRs are involved? (Refer to AP/1B book and chart)

What is the floor and ceiling of the MTR?

(Refer to AP/1B book and chart)

What are the widths of the segments? (Refer to AP/1B book)

Who is the DOD scheduling activity for the MTRs? (Refer to AP/1B book)

NOTES

AIRSPACE EXERCISE WORKSHEET Sample Exercise

	Scheduling Controlling	g Activity (MTR) g Agency (MOA)	Commo	ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
Airspace (SUA	Identification A or MTR)	Segment Affecte	ed (MTR)	Width	(MTR)	Altitudes	Hot or Not
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Daily Cor Remarks	ntact :						
Date	Scheduling Controlling	g Activity (MTR) g Agency (MOA)	Commo	ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
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AIRSPACE EXERCISE WORKSHEET Sample Exercise

Lat/Long	g: <u>37°</u>	<u>' 22'N X 114° 3</u>	7'W, Las	Vegas Section	<u>onal</u>		
Date	Scheduling Controlling	J Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
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	Identification A or MTR)	Segment Affecto	ed (MTR)	Width	(MTR)	Altitudes	Hot or Not
Daily Cor Remarks	ntact :						

AIRSPACE EXERCISE WORKSHEET Exercise 1

Lat/Long	j: <u>39°</u>	38′N x 116° 4	5'W, Las	Vegas Section	<u>onal</u>		
Date	Scheduling Controlling	g Activity (MTR) Comme g Agency (MOA)		ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
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Date	Scheduling	Activity (MTR)	Comm	ercial Phone #	Conta	ct Made to:	Contact made by:
	Controlling	Agency (MOA)			(Scheduler or	Controller's name)	(Dispatcher's name)
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AIRSPACE EXERCISE WORKSHEET Exercise 1, continued

Lat/Long	j: <u>39°</u>	<u>' 38′N x 116° 4</u> !	<u>5'W, La</u>	s Vegas Secti	<u>ional</u>		
Date	Scheduling Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #	Contact Made to: (Scheduler or Controller's name)		Contact made by: (Dispatcher's name)
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AIRSPACE EXERCISE WORKSHEET Exercise 2

Date	Scheduling Controlling	Scheduling Activity (MTR) Controlling Agency (MOA)		Commercial Phone #		Contact Made to: (Scheduler or Controller's name)	
Airspace (SUA	Identification	Segment Affecto	ed (MTR)	Width	(MTR)	Altitudes	Hot or Not
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Date	Scheduling	Activity (MTR)	Comm	ercial Phone #		ct Made to:	Contact made by:
Remarks Date	Scheduling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
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Date Airspace	Scheduling Controlling Identification	Agency (MOA)			(Scheduler or	Controller's name)	(Dispatcher's name)
Date Airspace	Scheduling Controlling Identification	Agency (MOA)			(Scheduler or	Controller's name)	(Dispatcher's name)

AIRSPACE EXERCISE WORKSHEET Exercise 2, continued

Date Scheduling Activity (MTR) Commercial Phone # Contact Made to: (Scheduler or Controller's name) Contact made by: (Dispatcher's name) Airspace Identification (SUA or MTR) Segment Affected (MTR) Width (MTR) Attitudes Hot or Not Daily Contact Remarks: Date Scheduling Activity (MTR) Commercial Phone # Contact Made to: (Scheduler or Controller's name) Airspace Identification Segment Affected (MTR) Width (MTR) Contact Made to: (Scheduler or Controller's name) Airspace Identification Segment Affected (MTR) Width (MTR) Attitudes Hot or Not Airspace Identification Segment Affected (MTR) Width (MTR) Attitudes Hot or Not Daily Contact Remarks:	Lat/Long	j: <u>38°</u>	<u>′ 00′N x 116° 0</u>	0'W, Las	Vegas Section	<u>nal</u>			
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AIRSPACE EXERCISE WORKSHEET Exercise 2, continued

Lat/Long	j: <u>38°</u>	<u>' 00'N x 116° 0</u>	0'W Las	Vegas Sectio	<u>nal</u>		
Date	Scheduling Controlling	g Activity (MTR) Comme g Agency (MOA)		ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
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Date	Scheduling Controlling	J Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
Airspace (SUA	Identification A or MTR)	Segment Affecte	ed (MTR)	Width	(MTR)	Altitudes	Hot or Not
Daily Con	ntact	ı		ı		1	
Daily Contact Remarks:							

AIRSPACE EXERCISE WORKSHEET Exercise 3

Lat/Long	j: <u>43°</u>	<u>' 05′N x 119° 5</u>	8'W, Kla	<u>math Falls Se</u>	<u>ctional</u>			
Date	Scheduling Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Cont (Dispa	act made by: atcher's name)
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Date	Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	(Dispa	act made by: itcher's name)
Airspace (SUA	Identification A or MTR)	Segment Affecto	ed (MTR)	Width	(MTR)	Altitudes		Hot or Not
Daily Cor Remarks	ntact :							

AIRSPACE EXERCISE WORKSHEET Exercise 3, continued

Lat/Long	j: <u>43°</u>	05′N x 119° 58	B'W, Kla	math Falls Se	<u>ctional</u>		
Date	Scheduling Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Contact made by: (Dispatcher's name)
Airspace (SUA	Identification A or MTR)	Segment Affecte	ed (MTR)	Width	(MTR)	Altitudes	Hot or Not
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Airspace (SUA	Identification A or MTR)	Segment Affecte	ed (MTR)	Width	(MTR)	Altitudes	Hot or Not
Daily Cor Remarks	ntact :						

AIRSPACE EXERCISE WORKSHEET Exercise 4

Lat/Long	: <u>40°</u>	17′N x 120° 04	4'W, Kla	<u>math Falls Se</u>	<u>ctional</u>			
Date	Scheduling Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Cont (Dispa	act made by: atcher's name)
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Date	Scheduling Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Cont (Dispa	act made by: atcher's name)
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Daily Con Remarks:	tact							

AIRSPACE EXERCISE WORKSHEET Exercise 5

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Date	Scheduling Controlling	Activity (MTR) Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Contact made by (Dispatcher's nam
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Airspace (SUA	Identification (or MTR)	Segment Affecte	ed (MTR)	Width	(MTR)	Altitudes	Hot or No
Daily Con Remarks	ntact						

AIRSPACE EXERCISE WORKSHEET Exercise 6

Lat/Long	j: <u>39°</u>	<u>′ 50′N X 118° 0</u>	4'W, Sar	n Francisco Se	<u>ectional</u>			
Date	Scheduling Controlling	g Activity (MTR) g Agency (MOA)	Comm	ercial Phone #		ct Made to: Controller's name)	Cont (Dispa	act made by: itcher's name)
Airspace (SUA	Identification A or MTR)	Segment Affecto	ed (MTR)	Width	(MTR)	Altitudes		Hot or Not
	(SUA or MTR)							
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Date	Schoduling	g Activity (MTR)	Comm	ercial Phone #	Conta	ct Made to:	Cont	act made by:
Date	Controlling	Agency (MOA)	Comm	Trone #		Controller's name)	(Dispa	itcher's name)
Airspace (SU <i>F</i>	Identification A or MTR)	Segment Affecte	ed (MTR)	Width	(MTR)	Altitudes		Hot or Not
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AIRSPACE EXERCISE WORKSHEET Exercise 7

Lat/Long	j: <u>37°</u>	[°] 40′N x 121° 3	2'W, Sar	r Francisco Se	ectional ectional			
Date	Date Scheduling Activity (M' Controlling Agency (MC		Commercial Phone #		Contact Made to: (Scheduler or Controller's name)		Contact made by: (Dispatcher's name)	
Airspace Identification (SUA or MTR)		Segment Affected (MTR)		Width (MTR)		Altitudes	ŀ	lot or Not
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AIRSPACE EXERCISE WORKSHEET Exercise 8

Lat/Long	g: <u>39°</u>	32′N x 121° 0	3'W, Sar	Francisco Se	ectional ectional			
Date	Scheduling Activity (MTR) Controlling Agency (MOA)		Commercial Phone #		Contact Made to: (Scheduler or Controller's name)		Contact made by: (Dispatcher's name)	
Airspace Identification (SUA or MTR)		Segment Affected (MTR)		Width (MTR)		Altitudes		Hot or Not
N/A		N/A		N/A				
Daily Cor Remarks	ntact :							
Date Schedulin Controllin		g Activity (MTR) Comm				ct Made to: Controller's name)	Contact made by: (Dispatcher's name)	
Airspace Identification (SUA or MTR)		Segment Affected (MTR)		Width (MTR)		Altitudes		Hot or Not
Daily Cor Remarks	ntact :							